October 2026

The Cutting Edge

Monthly Newsletter of the Ottawa Lapsmith and Mineral Club

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Workshop:
136F Billings Avenue

Mailing Address:
PO Box 57012, Ottawa RPO
Gladstone, Ottawa, ON, K1R 1A1

Phone: 613-850-5486

Website: https://olmc.ca/

Facebook:
http://www.facebook.com/OttawaLapsmithMineralClub

Instagram:
https://www.instagram.com/olmcnews/

President's Message

It was a quiet summer. There were no big problems or major acquisitions. A highlight was when Eric Clara donated a five gallon pail of self-collected amethyst from the Panorama mine in Thunder Bay. We should be returning to a full schedule in October.

The club now has a new supply of 12-inch aluminum oxide sanding discs including 1000 and 2000 grits.

The show went well. I do not yet have attendance figures, but it seemed a lot busier than last year.

Our next online auction will be in late November. All club members may contribute up to 5 "buy it now" and 5 "auction" items. Please submit all items and photos by November 01 so please start putting some thought into it.

Kerry Day

OLMC President

All members are invited to submit articles, proposals, and thoughts that could be included in the newsletters. Also, feel free to send your Classified ads by e-mail to: news@olmc.ca

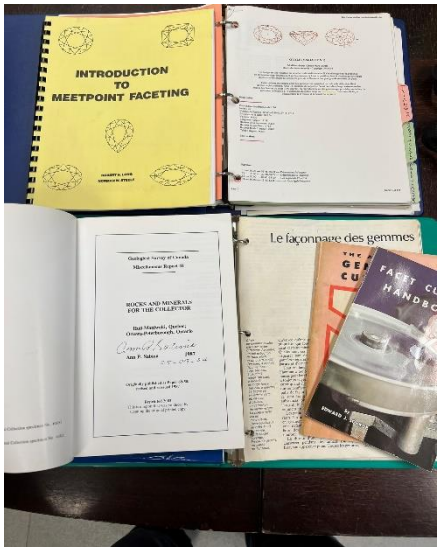
Coming Up Next…

Numerous people have been inquiring about a Silversmithing course. Our shop supervisor Don Alp will throw something together after the show. There may be additional courses in wire wrapping and carving.

Some people have been trying to sell collections to the club. As a rule the club does not buy collections; we already have piles of stuff to get rid of! We bend only if there is something really unique that the club should have. There are many on-line and free marketplaces for everything else.

Quality Faceting Machine, Accessories Acquired

Recently the workshop was contacted by Anne Bigras, who wanted to sell her faceting machine, some gem-quality rough, and a number of other things to the club for a significant discount. Ms. Bigras was the President of the Club de Minéralogie de l'Outaouais from 1997-2007. They used to meet at the CEGEP in Hull (Gatineau). A huge thank you to Ms. Bigras for letting the club have these items.



Clockwise from top left:

Facetron with lap discs and some related chemicals, faceting rough and vesuvianite from Asbestos, QC, and a small table on wheels

books and binders including autographs by Anne Sabina

sturdy and well-kept storage organizers

prospecting tools

Pictures: 2026 Gem, Mineral & Jewellery Show and Sale

An enormous "thank you" to all club members who volunteered their time to staff booths, and demonstrate skills, and to usher people to where they needed to be. Thanks to all the vendors who once again bring their amazing, wonderful trove of treasures, and to the academic partners who generously offered their time to educate the public. And, thanks to the staff at the Nepean Sportsplex who were so helpful and attentive helping vendors with power problems and other last-minute incidents.
Special thanks goes to Ash Charania of Rainbow Minerals. Using her own initiative, she made a brilliant Instagram ad promoting the show. Also thanks you HoliDon's Secret who also made promoted our show through their account.

Here is a selection of images from the club's Instagram account "olmcnews" and Facebook page. There are lots more photos and videos there.

Facebook Reels of Traditional Skills

Cookie Dough Forge (6 min.)

Build a small temporary forge to melt down metals. Sounds like a useful way to melt down your scrap metals on your own. Sounds like the hardest part is finding a metal coffee can.

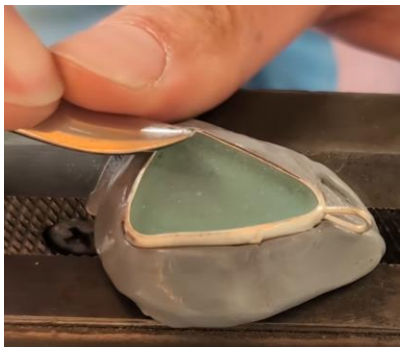
Flame-painted Copper (2 min 22 sec)

Use the extreme heat of a torch to make a kaleidoscope of colours called copper heat patina. The heat causes copper atoms to crystallize into grains that refract light differently depending on the temperature. Cooler temperatures form smaller grains of copper that refract light in the redder color tones, while hotter temperatures form larger grains that appear yellow.

Thermo-loc (15 sec)

This reusable polymer holds pieces in place while you set the stone. Heat gun or decent hair dryer will soften the polymer

Note from OP: make sure you use a bit of masking tape on the back of your bezels if you have pierced the back out or it gets behind the setting as you push it in!



Diamond necklace stolen from Austrian museum

In August, two bold, unmasked men stole a platinum necklace covered in 673 diamonds weighing 200 carats from the Museum of Applied Arts in Vienna.

After buying tickets and entering the exhibition, the thieves smashed the glass display case, grabbed the necklace, and ran off.

The necklace was part of an exhibition of the Parisian jewellery house Van Cleef & Arpels. It was owned by the Queen Consort Nazli of Egypt (b. 1894, d. 1978). It was sold at a Sotheby's auction in 2015 for USD $4.3 million.

How to Get a Clean Squared-up Bezel Wire

From the Silversmiths Meeting 2023-04-04

Two symptoms may be apparent when bezel wire ends are not square to each other.

1. There is a gap between the wire ends letting light through, or the ends flare out.
2. Sanding can be hit-or-miss, and eventually the wire gets too short.

Some solutions:

Use a miter gauge, or something similar. In woodworking, it is a pivoting barrier attached to a saw table that allows an item to be cut at a certain angle. Basically, line up the bezel wire with the top of the gauge, and clip the part that sticks out.

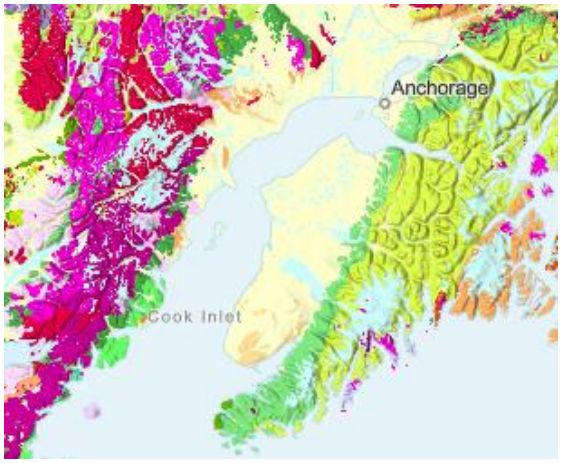
Use a vise and place the wire ends close together in the vise. Use a small needle file to take away the part that sticks out.

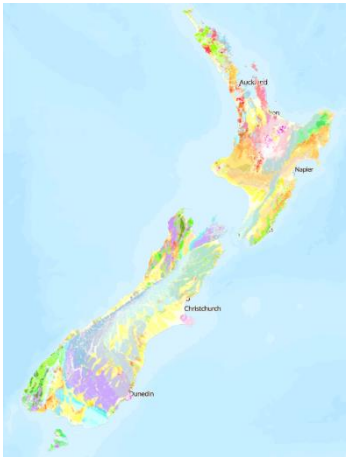
Good saw technique can force a straight line by cutting off the excess, but holding the wire might be difficult

Updated Online Geologic Maps

The Cooperative National Geologic Map was updated on August 1, 2026. There is an updated interface, new maps, and more. The data comes from the United States Geological Survey (USGS) and Association of American State Geologists (AASG), so it is just the United States.

For a global view, there is the ArcGIS map that was updated in June 2026, with more options to enhance and share images, and some functional improvements. It includes data from around the world. Some of that data relates to geology. Users can pay to use more features including artificial intelligence agents.





Left: QMAP Geological Map of New Zealand layer in ArcGIS.

Far left: part of Alaska as seen in the base map of the CNGM.

Tourmaline

Tourmaline is a crystalline trigonal borosilicate mineral group containing 42 members. It has a Mohs scale hardness 7.0–7.5, moderate to strong pleochroism, and pink stones show weak ultraviolet flourescence. Tourmaline shows pyroelectricity and piezoelectricity. When a crystal is exposed to heat or pressure, an electrical charge appears at the ends, causing polarization. In the 19th century, chemists used cut and polished tourmalines to polarize light rays. Analysis of tourmaline at that time was also key to the discovery of lithium.

Bi-chromatic tourmaline crystal, 2 cm long; photo by Adrian Pingstone, Public domain, via Wikimedia Commons

Tourmaline is found in granite and granite pegmatites and in metamorphic rocks such as schist and marble. Gem and specimen tourmaline is mined in Brazil, southeast Africa (Tanzania, Kenya, Madagascar, Mozambique, Malawi, Namibia) and Nigeria, and southern Asia (Pakistan, Afghanistan, Indonesia, Sri Lanka, India). Around Ottawa, there is a variety of tourmaline at the Quadeville East Mine (Beryl Pit) and other places.

Tourmaline is distinguished from other minerals by its unique three-sided prisms and heavy vertical striations. The crystals are long (relative to width), slender to thick prismatic and columnar crystals. Smaller crystals forming radial daisy-like patterns are commonly seen in aplite, a fine-grained granite that can be found all over the world.

There is wide variation in the chemical composition due to replacement, and consequently a variety of colours. Often it is bi-coloured or multi-coloured. Iron-rich tourmalines (schorl species) are black to bluish-black to deep brown. This is the most common type of tourmaline. Magnesium-rich varieties (dravite species) are brown to yellow, ranging from group end member sodium magnesium rich dravite the other end calcium magnesium rich uvite. Opaque black schorl and yellow tsilaisite high magnetic susceptibilities due to the high concentrations of iron and manganese respectively. Most gem-quality tourmalines are of the lithium-rich elbaite species that come in blue, green, red, yellow, pink, etc. The pink color usually is the result of prolonged natural irradiation.

Some tourmalines, especially pink to red colours, are treated with heat to make dark red stones a bit lighter, or gamma ray irradiation or electron beams to make light pink stones a bit darker.

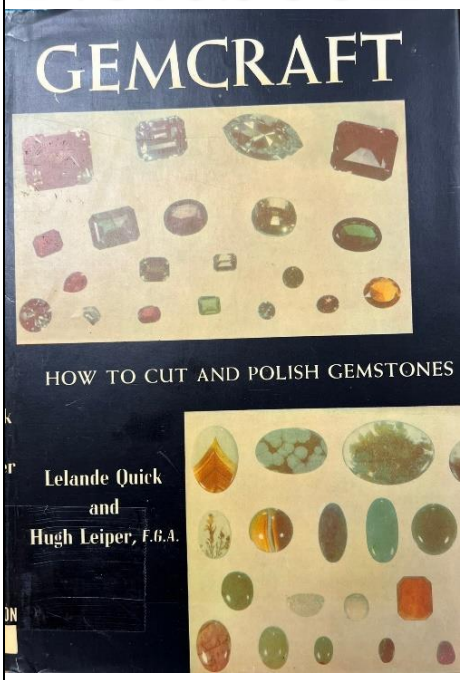
Tourmaline is a cyclosilicate, where SiO4 tetrahedra are linked into six-membered rings forming a hexagonal pattern. These are stacked with intervening distorted triangular BO3 groups compounded with aluminium, iron, magnesium, sodium, lithium, or potassium.

Lapidary Notebook

Gemcraft

By Lelande Quick and Hugh Leiper, F.G.A.

Chapter 7: How to Cut Star and Cat's-Eye Gems



Asterism is known to exist in sapphire, ruby, rose quartz, garnet (four rays instead of six). Rarely it is seen in beryl, diopside, labradorite, spinel and tourmaline.

Asterism is caused by regular oriented inclusions that follow the natural crystal form of the material in which they are contained. For example, corundum has a bipyramidal hexagonal form (two six-sided pyramids joined at the base), though most samples are not perfect. A natural crystal formed without pressures or foreign minerals should form a perfect clear and facetable material.

But in less than ideal conditions, there are pressures affecting the stone while it is near other minerals like rutile that form needles parallel to the growth lines of the crystal, or tubes as the crystal grows around the rutile before it is dissolved. In addition, the rutile needles form oriented to each other in a hexagonal arrangement. There will be masses of these microscopic crystals that reflect light into three chatoyant lines.

A centered star sapphire can be cut from any portion of a crystal with two conditions:

1. the base is parallel to a cut made at right angles across the "c" axis (long axis) of the crystal.
2. the material contains the microscopic inclusions that cause asterism

So, the trick is to orient the saw cut at the exact angle.

Some stones meet the conditions of asterism, but have none. In those cases, the inclusions are called banding, or growth lines, or phantoms. They may be concentrated at one side of the crystal, or deformed, or the crystal growth was interrupted. Nothing can be done about it.

Finding the center point of the asterism in a random gem stone takes some imagination. Imagine the base plane through the gem at the girdle in a north-south direction and a east-west direction. Use a single source of undiffused incandescent light. Now imagine a line (the "C" axis) between the light source and the imagined base plane of the stone, rotating the stone as needed to get maximum conformity.

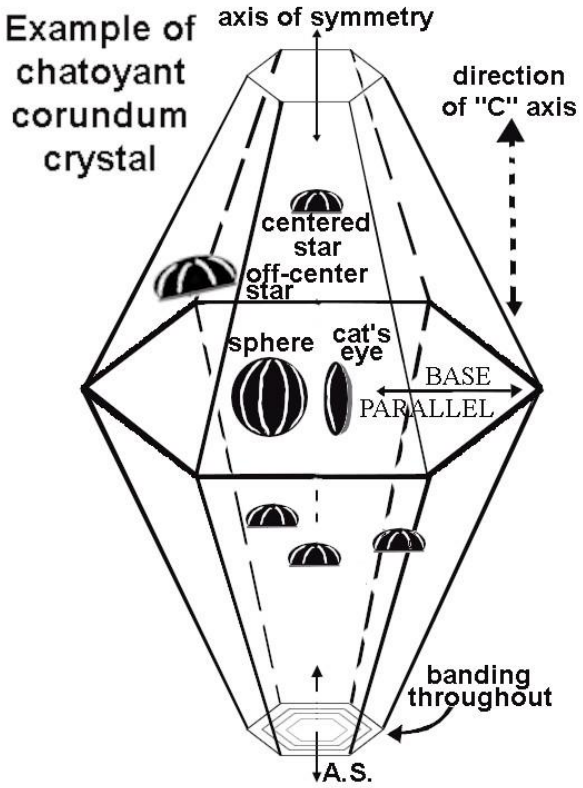
In sunlight, or in the presence of multiple light sources, a gem stone containing a lot of rutile may show some asterism in multiple directions.

When cutting a cabochon for asterism, it is a good idea to re-check the orientation after flat-lapping the bottom and the initial shaping of the dome using a grinder. Oil the surface to keep it "wet", and use a single source of light to confirm the angle is right.

CUTTING CAT'S-EYES

Gemstones with tubes or fibers lying in one direction are quite valuable when made into a round or oval cabochon.

Stones that have this property include: cymophane, scapolite, tourmaline, aquamarine, morganite, green beryl, nepohirte jade, williamsite (serpentine), dumortierite, kunzite, spodumene, apatite, spar, crocidolite (tigerseye), quartz, sillimanite (fibrolite), iolite, enstattite, sapphire, and some too soft materials.



Most of the inclusions that cause cat's-eyes need no special precautions. However, sometimes the tubes are porous and open (ahem, tourmaline). This material must be treated to prevent polishing grit and other residue from getting into the pores and creating spots on the surface.

To treat the stone, soak it in a container of heated sodium silicate solution with a few drops of liquid detergent that will reduce surface tension and promote capillary action. Leave the stone in the solution for some time. Then, remove the stone, let it dry, and repeat the process. Continue until the pores are filled and dry.

Use water saws only to cut this treated stone, because oil will still get in the pores. After grinding the stone into a cabochon shape, re-treat it in the silicate solution before proceeding to the polishing stage. After polishing, soak the treated stone in warm water which will dissolve any residue silicate on the surface.

HOW TO PUT THE "EYE" IN TIGERSEYE

The tigerseye should be cut parallel to the grain of the fibers. Even a difference of 2 or 3 degrees can make the difference between proper cut and an improper cut. Then, look across the slice at about a 60-degree angle. If done right, the near half of the slice should appear dark or one colour, and the far half should appear light or the opposite colour. Mark with a pencil the dividing line between the two colours. Rotate the stone 180 degrees, so that what was the near side is now the far side. Mark again the dividing line of the two colours. Hopefully the two pencil lines are the same.

When getting ready to mark your cabochon shape with a template, look down at the slice or slab at 60 degrees. Make sure the slice has the light half towards you, and this will be the bottom of the stone. Cut and polish the cabochon with the same orientation, and it should have the floating "eye" of light.

Contact:

President
Kerry Day
pres@olmc.ca

Vice-President
Michel Mirota
vicepres@olmc.ca

Secretary
Janet Borzecki
sec@olmc.ca

Treasurer
Catherine Garrett
treasurer@olmc.ca

Workshop Chair
Donovan Alp
workshop@olmc.ca

Membership Chair
Judy Courteau
memberchair@olmc.ca

Show Chair
Stéphane Jetté
showchair@olmc.ca

Newsletter Editor
Eric Clara
news@olmc.ca

Workshop Schedule

October 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Faceting 6-9 pm (JL)	2	**3** Lapidary 10-4:00 pm (CG, KD)
4	5	**6** Lapdiary 10-2pm (RV) Silversmiths 6:30-9:30 pm (JB)	**7** Lapidary 5:00-9:00 pm (JGB)	**8** Faceting 6-9 pm (DA)	9	**10** Lapidary 10-4:00 pm (JL, KD)
11	12	**13** Lapdiary 10-2pm (RV) Silversmiths 6:30-9:30 pm (DA)	**14** Lapidary 5:00-9:00 pm (JL)	**15** Faceting 6-9 pm (RB)	16	**17** Lapidary 10-4:00 pm (CG, EC)
18	19	**20** Lapdiary 10-2pm (RV) Silversmiths 6:30-9:30 pm (JB)	**21** Lapidary 5:00-9:00 pm (CG)	**22** Faceting 6-9 pm (JL)	23	**24** Lapidary 10-4:00 pm (SJ, KD)
25	26	**27** Lapdiary 10-2pm (RV) Silversmiths 6:30-9:30 pm (DA)	**28** Lapidary 5:00-9:00 pm	**29** Faceting 6-9 pm (DA)	30	**31** Lapidary 10-4:00 pm (DF, NB)

OTTAWA LAPSMITH AND MINERAL CLUB

www.olmc.ca

Membership Application

Membership Type:

☐New Membership

☐Membership Renewal

Number of Members:

☐Individual **$20**

☐Family (2+ persons in the same residence) **$30**

Benefits:

- Use of supervised workshop
- Monthly newsletter
- OLMC online auctions
- Access to free and paid courses
- Newsletter advertising: $25/yr for members, $55/yr for businesses *(ten quarter-page ads across ten issues)*
- Participate in *Club Creations* tables at annual gem show
- Membership in *Central Canadian Federation of Mineral Societies* (CCFMS)
- Opportunity to get involved in club leadership

Name(s): _____

Address: _____

City: _____ Province: _____

Postal Code: _____ Telephone: _____

Email for OLMC newsletter: _____

Do you require a receipt? ☐Yes

3 ways to join the OLMC:

- **In-person** at our annual gem show or at the workshop (**cash** or **e-transfer**)
- **Email** your form to treasurer@olmc.ca (**e-transfer** to same email)
- **By mail** with a **cheque** to Ottawa Lapsmith and Mineral Club
  Ottawa Lapsmith and Mineral Club
  P.O. Box 57012 RPO Gladstone, Ottawa, ON K1R 1A1

Please note that all membership information is used only for administrative purposes.

Administration use only

Card provided: ☐Yes ☐No Supervisor signed: ☐Yes ☐No

Date: _____